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09/363,028	07/29/1999	KENICHI OHTA	35.C13697	7604

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EXAMINER

VIDA, MELANIE M

ART UNIT	PAPER NUMBER
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2697

DATE MAILED: 09/10/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/363,028

Applicant(s)

OHTA, KENICHI

Examiner

Melanie M Vida

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 5 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 6/20/03 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Response to Amendment***

2. In response to the Office Action mailed on March 20, 2003, applicants have submitted an amendment filed on June 20, 2003 amending claims 1-4, 6, 7, 9, 10, and canceling claim 5, and arguing to traverse the rejection of pending claims 1-4, 6-10.

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 1- 4, 6 - 10 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claim 6** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase "a kind of recording material" is vaguely recited in the claim. It is unclear as to the kind of recording material, which causes a patch to vary.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claim 8** is rejected under 35 U.S.C. 102(b) as being anticipated by Sobol, USP 5,185,673, (hereinafter, Sobol).

Regarding, **claim 8**, as shown in figure 4, Sobol teaches a document processing system (290), for calibrating a print path to pre-compensate an original document (302) and a step (406) to calibrate an image for printing with calibration images, which reads on “an image processing method”, (col. 6, lines 24-25; lines 29-30). Sobol further teaches that the calibration images are sent directly to a printer (226) to calibrate the current print path, which reads on “to output onto a recording medium a reference image”, (col. 6, lines 30-38). Sobol teaches that a user instructs the scanner software (202) to create one or more calibration images prior to printing an image, which reads on “based on a predetermined patch pattern”, (col. 6, lines 30-33). Further, the calibration images may contain native printer resolution, file format, color or black and white printer, target contains grayscale patches or color patches and version of scanner software (202), which reads on “and generating an image output condition of the image output unit on the basis of read data of the reference image output by the image output unit”, (col. 6, lines 40-49). As shown in figures 5-6, color calibration images, (CCI), have 216 squares of different color, and 256 squares of different shades of gray, which reads on “the number of black is different from the number of patches of another color”, (col. 9, lines 23-25; lines 34-36).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 1-4, 7, 9-10** are rejected under 35 U.S.C. 103(a) as being unpatentable over the applicant's admitted prior art (hereinafter, Admission), and further in view of Hirata et al. U.S. Patent Number 6,462,838, and further in view of Itoh, USP 4,513,325, (hereinafter, Itoh).

Regarding **claim 1**, the Admission teaches by way of Figure 10, 11, and 12, the image processing method, which imprints a predetermined patch pattern, (121), via a color printer (107), onto a recording medium, which reads on "an image processing method for instructing an image output unit to output onto a recording medium a reference image based on a predetermined patch pattern", (see figs. 10-12).

The Admission does not expressly disclose that plural, identical patches are disposed at different positions on the recording medium.

Hirata teaches by way of Fig. 12, that two automatic image density control, (AIDC) patterns, item 90, are identical and disposed in a plurality of locations, which reads on "the patch pattern, plural identical", (see fig. 12). Hirata teaches that the test patterns are formed in the areas of the belt, 34, between the edges of a copy sheet and the edges of the belt, 34, which reads on "patches are disposed at different positions on the recording medium", (col. 5, lines 15-25; col. 12, lines 10-50).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the Admission's image processing method of one predetermined test pattern with Hirata's teachings of having a plurality of predetermined reference patterns for analyzing image densities reproduced.

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One of ordinary skill in the art would have been motivated to do this because the laws of probability theory support that as the number of samples approaches infinity, the accuracy of the ratio of the sample readings and the number of samples approaches a true and accurate reference value. Therefore, by discriminating among the readings from a plurality of reference boards, the accuracy of the scanner readings is improved.

The Admission in view of Hirata do not expressly disclose “including at different positions in a main-scan direction and a sub-scan direction.

However, as shown in figures 3-4, reference patterns (1-1), Itoh teaches “1/0” patterns made to have a phase in coincidence with the corresponding picture elements such as normal handwritten or printed documents, and pictures, arranged along both the main scanning direction, and the sub-scanning directions, which reads in “including at different positions in a main-scan direction and a sub-scan direction”, (col. 3, lines 39-48).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to modify the Admission in view of Hirata’s test reference patterns, to be placed in a main-scanning direction, and a sub-scanning direction, as per Itoh.

One of ordinary skill in the art would have been motivated to place test reference patterns in the main scanning direction and the sub scanning direction in order to calibrate the scanning apertures for conducting optoelectric conversion and recorded picture elements of the input original (1), given the express suggestion of Itoh, (col. 2, lines 14-16).

Referring to **claim 2**, the Admission further teaches that the density readings from a reference patch can be measured not only by an expensive densitometer, but also by a flatbed scanner, (page 7, lines 1-15).

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Referring to **claim 3**, Hirata further teaches that an approximate gradation reproduction characteristic, may be calculated from an average value from the measured values obtained by the test patterns, 90, on either end of the copy surface is used to form measured values, so that the specific gradation level of the input image correspond to the target density calculated, (col. 12, lines 51-67), (col. 13, lines 1-5), (col. 13, lines 45-51), (figure 12-13).

Hirata further teaches **claim 4** in that there is one file for each color CMYK each containing six AIDC, *read as test patterns*, having different image densities from each other, *read as the patches vary according to a color of the patch* (col. 12, lines 34-48).

Hirata further teaches **claim 7** in that each of the files for CMYK contain four test files for differing image densities on each, wherein it is inherently taught there may be a larger number of patches in the high density portions than the patches in low density portion in one of the four AIDC test patterns stored in a color file (col. 12, lines 35-44).

With regards to **claims 9-10**, please refer to the like teachings of claim 1.

9. **Claim 6** is rejected under 35 U.S.C. 103(a) as being unpatentable over the applicant's admitted prior art (hereinafter, Admission), and further in view of Hirata et al. U.S. Patent Number 6,462,838, and further in view of Itoh, USP 4,513,325, (hereinafter, Itoh), as applied to claim 1 above and further in view of Ogata, USP 6,473,200 B1, (hereinafter, Ogata).

Regarding, **claim 6**, the Admission in view of Hirata and further in view of Itoh teaches the method according to claim 1. As best understood from the claim language in claim 6, the Admission in view of Hirata and further in view of Itoh fail to expressly disclose "the patch varies according to a kind of recording material used in the image output unit".

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However, as shown in figure 2, Ogata teaches of a machine number pattern generator (24) that selects an identification pattern shown in figures 3-5, based on the type of recording medium and based on the image quality, (col. 5, lines 39-42).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to modify the patch pattern taught by the Admission in view of Hirata and further in view of Itoh, with Ogata's machine number pattern generator to generate a pattern according to the type of recording medium.

One of ordinary skill in the art would have been motivated to use a machine number pattern generator based on the recording medium because the optimum gradation output changes among different recording media types and film types.

#### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Manian, USP 5,565,678, compares optical density of image with reference optical density criteria associated with the type of recording medium used.

Terashita, USP 6,081,343, motivation for balancing gradation for different recording mediums (col. 5, lines 16-19).

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie M Vida whose telephone number is (703) 306-4220. The examiner can normally be reached on 8:30 am 5:30 pm.



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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly A Williams can be reached on (703) 305-4863. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Melanie M Vida

Examiner

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*mmv*

MMV

September 6, 2003

*KA Williams*  
Kimberly A. Williams  
Primary Examiner  
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